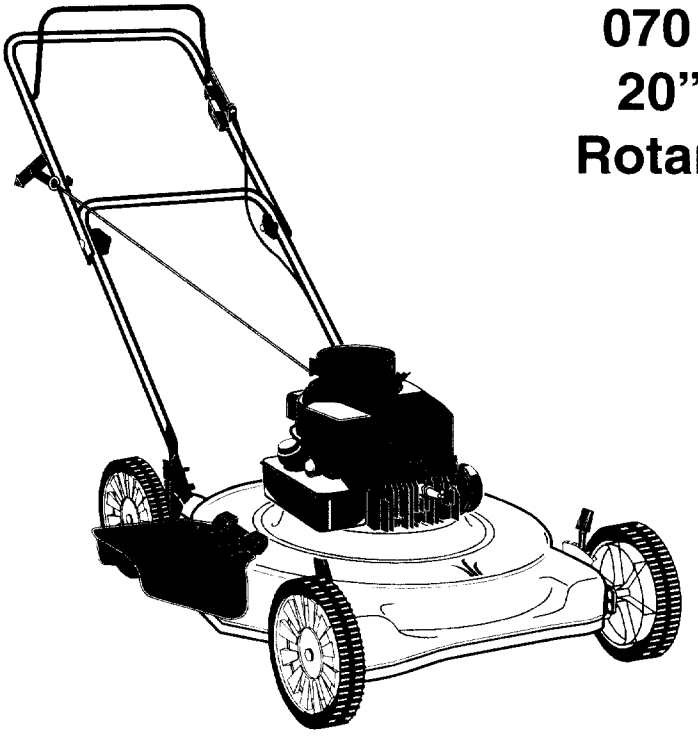
YARD MACHINES by MTD®

OPERATOR'S MANUAL

Model Series 070 Thru 088 20" and 22" Rotary Mowers



MTD For A Growing World.®

IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

Warning: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 368022 Cleveland, Ohio 44136-9722.

MTD PRODUCTS INC. P.O. BOX 368022 CLEVELAND, OHIO 44136-9722

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FORM NO. 770-10108
(9/98)

SECTION 1: FINDING YOUR MODEL NUMBER

This Operator's Manual is an important part of your new walk behind. It will help you assemble, prepare and maintain your walk behind. Please read and understand what it says.

Before you start to prepare your walk behind for its first use, please locate the model plate and copy the information from it in this Operator's Manual. The information on the model plate is very important if you need help from your dealer or the MTD customer support department.

- Every walk behind has a model plate. You can locate it by standing behind the unit in the operating position and looking down at the rear of the deck.
- The model plate will look like Figure 1

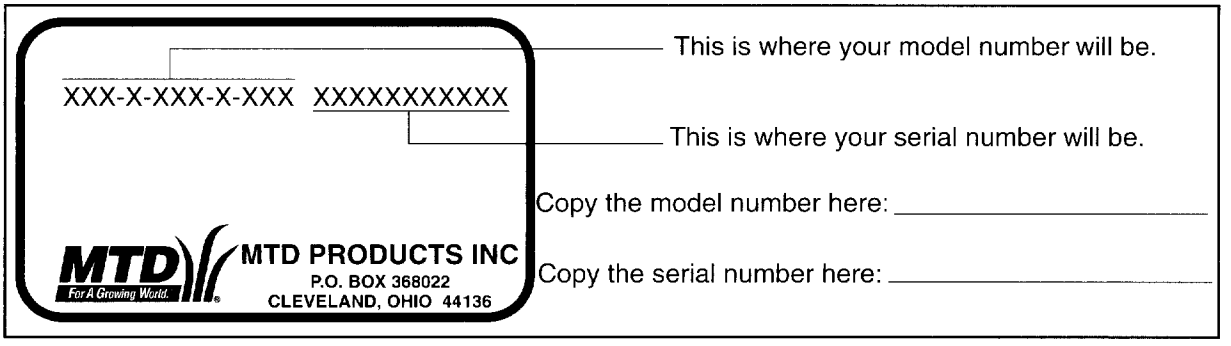

This is where your model number will be.
XXX-X-XXX-X-XXX XXXXXXXXXXX
This is where your serial number will be.
Copy the model number here:
MTD
For A Growing World.
MTD PRODUCTS INC
P.O. BOX 368022
CLEVELAND, OHIO 44136
Copy the serial number here:

Figure 1

SECTION 2: CALLING CUSTOMER SUPPORT

- **LOCATE YOUR MODEL NUMBER AND SERIAL NUMBER** — Record this information in the space provided. To find your unit's specific model number and serial number, see SECTION 1: FINDING YOUR MODEL NUMBER.
- If you are having difficulty assembling this product or if you have any questions regarding the controls, operation or maintenance of this unit, please call the Customer Support Department.
- Customer Support can be reached by dialing: **1- (330) 220-4MTD (4683)**
  or
  1- (800)-800-7310
- Please have your model number and serial number ready when you call.
- Although both numbers are important, you will be asked to enter only your ***serial*** number before your call can be processed.

SECTION 3: IMPORTANT SAFE OPERATION PRACTICES

WARNING: THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR LAWN MOWER. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL, HEED ITS WARNING.

WARNING: The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

DANGER: Your lawn mower was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This lawn mower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

1. GENERAL OPERATION

- Read this operator's manual carefully in its entirety before attempting to assemble this machine. Read, understand, and follow all instructions on the machine and in the manual(s) before operation. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- Your rotary mower is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times. Your unit has been designed to perform one job: to mow grass. Do not use it for any other purpose.
- Never allow children under 14 years old to operate a power mower. Children 14 years old and over should only operate mower under close parental supervision. Only responsible individuals who are familiar with these rules of safe operation should be allowed to use your mower.
- Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower to help prevent blade contact or thrown object injury. Although the area of operation should be completely cleared of foreign objects, an object may have been overlooked and could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.
- Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Shirts and pants that cover the arms and legs and steel-toed shoes are recommended. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, slippery or light weight (e.g. canvas) shoes.
- Always wear safety glasses or safety goggles during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
- Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones, toys and other foreign objects which could be picked up and thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders and the like. To help avoid a thrown objects injury, keep children, bystanders and helpers at least 75 feet from the mower while it is in operation.
- Do not put hands or feet near or under rotating parts. Keep clear of discharge opening at all times as the rotating blade can cause injury.
- Many injuries occur as a result of the mower being pulled over the foot during a fall. Do not hang on to the mower if you are falling; release the handle immediately.
- Never pull the mower toward you while you are walking. If you must back the mower away from a wall or obstruction first look down and behind, and then follow these steps:
  - Step back from the mower to fully extend your arms.
  - Be sure you are well balanced with sure footing.
  - Pull the mower back slowly, no more than half way toward you.
  - Repeat these steps as needed.
- Do not operate the mower while under the influence of alcohol or drugs.

- Do not engage the self-propelled mechanism on units so equipped while starting engine.
- The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions and automatically return to the disengaged position when released.
- Never operate the mower in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. Keep a firm hold on the handle and walk, never run. If you feel you are losing your footing, RELEASE THE BLADE CONTROL HANDLE IMMEDIATELY and the blade will stop rotating within three seconds.
- Mow only in daylight or good artificial light.
- Stop the blade when crossing gravel drives, walks or roads.
- If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
- Never operate mower without proper guards, grass catcher, plates or other safety protective devices in place.
- Muffler and engine become hot and can cause a burn. Do not touch.
- Only use accessories approved for this machine by the manufacturer. Read, understand, and follow all instructions provided with the approved accessory.
- If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer for assistance. Telephone 1-800-800-7310 for the name of your nearest dealer.
- Do not adjust the throttle control with the engine running.

2. SLOPE OPERATION

For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15 degrees as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

DO:

- Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
- Watch for holes, ruts, hidden objects, or bumps. Tall grass can hide obstacles.
- Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your balance release the blade control handle immediately and the blade will stop in less than 3 seconds.

DO NOT:

- Do not mow near drop-offs, ditches or embankments. The operator could lose footing or balance.
- Do not mow slopes greater than 15 degrees as shown on the slope gauge.
- Do not mow on wet grass. Reduced footing could cause slipping.

3. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the mower and the mowing activity. Never assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- Be alert and turn mower off if a child enters the area.
- Before and while moving backwards, look behind and down for small children or other objects.
- Never allow children under age 14 to operate the mower. Children 14 years of age and above should read and understand the operation instructions and safety rules in this manual.
- Use extreme care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision of a child or hazard.

4. SERVICE

- Use extreme care in handling gasoline and other fuels. They are extremely flammable and the vapors are explosive.
- Use only an approved gasoline container.
- Never remove gas cap or add fuel while the engine is running. Allow engine to cool at least two minutes before refueling.
- Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Never refuel machine indoors because flammable vapors will accumulate in the area.
- Never store the machine or fuel container inside where there is an open flame or spark such as a gas water heater, space heater, or furnace.
- Never run an engine inside a closed area.

- To reduce fire hazard, keep mower free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage. Allow mower to cool at least 5 minutes before storing.
- Before cleaning, repairing, or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the spark plug to prevent accidental starting.
- Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also, visually inspect blade for damage (e.g., bent, cracked or worn). Replace with blade which meets original equipment specifications listed in this manual.
- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- After striking a foreign object, stop the engine, remove the wire from the spark plug, and thoroughly inspect the mower for any damage. Repair the damage before starting and operating the mower.
- Never attempt to make a wheel or cutting height adjustment while the engine is running.
- Grass catcher components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. For safety protection, frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Do not change the engine governor setting or overspeed the engine. Excessive engine speeds are dangerous.

WARNING - YOUR RESPONSIBILITY: Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

TO REDUCE THE RISK OF INJURY, DO NOT OPERATE MOWER UNLESS REAR TRAILING SHIELD AND THIS GUARD OR ENTIRE GRASS CATCHER IS IN ITS PROPER PLACE.
DANGER
KEEP HANDS and FEET AWAY
DANGER
AVOID SERIOUS INJURY OR DEATH
KEEP HANDS AND FEET AWAY FROM ROTATING PARTS.
REMOVE OBJECTS THAT CAN BE THROWN BY THE BLADE IN ANY DIRECTION. WEAR SAFETY GLASSES.
DO NOT MOW WHEN CHILDREN OR OTHERS ARE AROUND.
USE EXTRA CAUTION ON SLOPES. DO NOT MOW SLOPES GREATER THAN 15°. MOW ACROSS, NEVER UP AND DOWN. NEVER PULL MOWER CLOSE TO YOUR FEET. LOOK DOWN AND BEHIND BEFORE AND WHILE MOVING BACKWARDS.
MAX 15°
1596C
READ OPERATOR'S MANUAL. KEEP SAFETY DEVICES (BLADE CONTROL, TRAILING SHIELD, DISCHARGE COVER, ETC.) IN PLACE AND WORKING.

Figure 2 Safety Labels Found On Lawn Mower

NOTE: The use of any accessory on this Rotary Mower other than those manufactured by the mower manufacturer is not recommended. GRASS CATCHER Model 190-110 is available as optional equipment for the mowers shown in this manual.

WARNING: To reduce the risk of injury, do not operate mower unless rear trailing shield and guard or entire grass catcher is in its proper place.

NOTE: Under normal usage bag material is subject to wear and should be checked periodically. Be sure to use only factory authorized replacement bag.

SECTION 5: CONTROLS

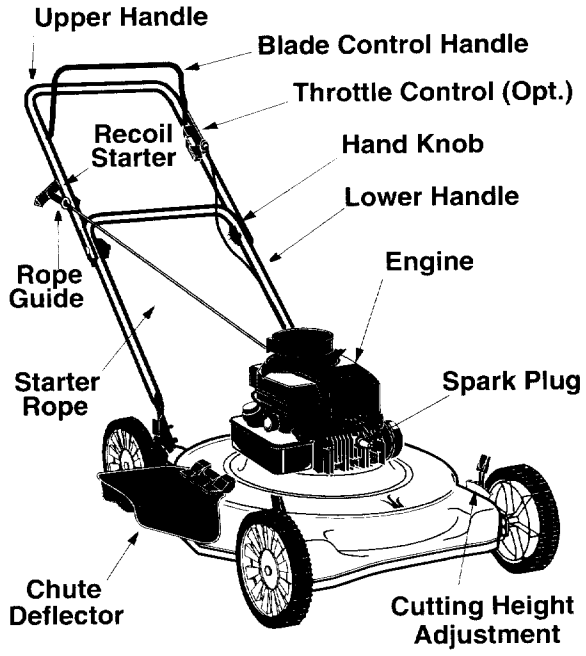


Figure 8

BLADE CONTROL HANDLE

WARNING: This control mechanism is a safety device. Never attempt to bypass its operations. The blade will rotate whenever the engine is running.

The blade control handle is located on the upper handle of the mower. See Figure 8. The blade control handle must be depressed in order to operate the unit. Release the blade control handle to stop the engine and blade.

OPTIONAL THROTTLE CONTROLS

Your unit may be equipped with 1 of 3 throttle controls. Follow instructions which pertain to your unit.

- The throttle control is located on the left side of the upper handle. It is used to regulate the engine speed.
- The throttle control is located on the engine. It is used to regulate the engine speed.
- Your engine is equipped with a contant speed throttle, which is set at full throttle for best performance.

WARNING: The throttle control cannot be used to stop the engine. If your throttle control is located on the engine, do not adjust the throttle control with the engine running.

RECOIL STARTER

The recoil starter is attached to the handle and is used to start the engine. See Figure 8.

SECTION 6: OPERATION

WARNING: Keep hands and feet away from the chute area on cutting deck. The operation of any lawn mower can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields. We recommend wide vision safety mask for over spectacles or standard safety glasses.

GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your mower. Read instructions carefully.

WARNING: Never fill fuel tank indoors, with engine running or until the engine has been allowed to cool for at least two minutes after running.

TO START ENGINE AND ENGAGE BLADE

1. Attach spark plug wire to spark plug. If unit is equipped with a rubber boot over the end of the spark plug wire, make certain the metal cap on the end of the spark plug wire (inside the rubber boot) is fastened securely over the metal tip on the spark plug.
2. Move throttle control lever to the fast (rabbit) position. (If equipped on your unit.)
3. If unit is equipped with a primer, prime engine as instructed in engine manual.
4. Standing behind the unit, depress the blade control handle and hold it against the upper handle as shown. See Figure 9.
5. Grasp starter handle and pull rope out slowly until engine reaches start of compression cycle (rope will pull slightly harder at this point). Let the rope rewind slowly.

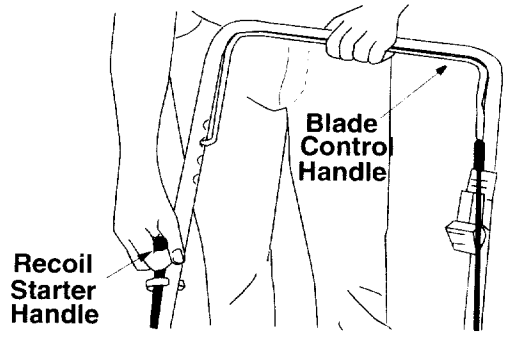


Figure 9

6. Pull rope with a rapid, continuous, full arm stroke. Keep a firm grip on starter handle. Return it slowly to the rope guide.

NOTE: If any problems are encountered, refer to the Trouble Shooting Guide on page 14.

TO STOP ENGINE AND BLADE

1. Release the blade control handle to stop the engine and blade.

WARNING: The blade continues to rotate for a few seconds after the engine is shut off.

2. Disconnect the spark plug wire and ground it against the engine to prevent accidental starting while equipment is unattended.

USING YOUR ROTARY MOWER

Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. Such objects could be accidently thrown by the mower in any direction and cause serious personal injury to the operator and others.

Operating Tips

1. Raise the cutting position until it is determined which height is best for your lawn. See cutting height adjustment section.
2. Do not cut wet grass because it tends to stick to the underside of the mower, preventing proper discharge of grass clippings, and could cause you to slip and fall.
3. New grass, thick grass or wet grass may require a narrower cut. Blade speed should be adjusted to the condition of the lawn.
4. The best mowing pattern is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them.
5. When cutting high weeds, discharge towards cut portion, then recut at right angles to first direction.
6. For a healthy lawn, never cut more than one-third of the total length of the grass at any one cutting. Lawn should be cut in the fall as long as there is growth.
7. This mower is designed to be operated at full throttle to give you the best cut and do the most effective job of bagging the cut grass.

WARNING: If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

SECTION 7: ADJUSTMENTS

WARNING: Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

CUTTING HEIGHT ADJUSTMENT

Each wheel is equipped with an adjusting plate and thumb lever to adjust the cutting height. Each adjusting plate has nine height positions. You can change the cutting height by moving the thumb lever to any of these nine positions.

1. Depress the lever towards the wheel and move the wheel and lever assembly to desired position.
2. Place all four wheels in the same relative position. See Figure 10.

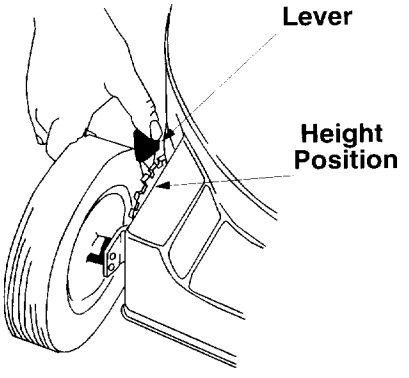


Figure 10

HANDLE HEIGHT ADJUSTMENT

Your mower is shipped with the handle in the higher height position. To lower the handle height, proceed as follows.

1. Remove the starter rope from the rope guide.
2. Remove the upper handle by removing the hand knobs and carriage bolts. Lay the upper handle out of the way, being careful not to bend or kink the cables.

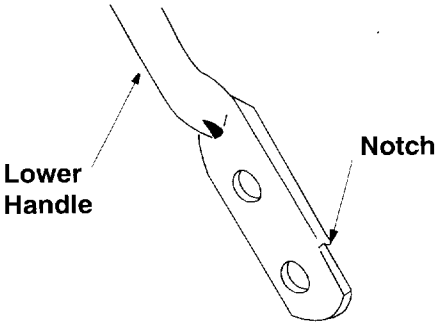


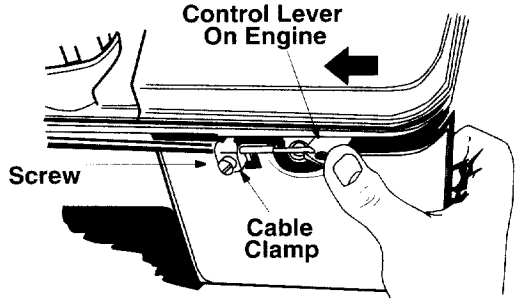
Figure 11

3. Remove cable ties. Remove the hairpin clips from the weld pins on the handle brackets. Press inward on the legs of the lower handle and remove it from the mower.
4. Turn the lower handle around so the notches on the bottom of the lower handle are facing forward as shown in Figure 11.
5. Reassemble placing the bottom holes in the lower handle over the weld pins in the handle mounting bracket.
6. Reassemble the upper handle.
7. Place hairpin clips in the inner holes in the weld pins and attach the starter rope as instructed in the Set-Up Instructions. Use cable ties to secure cables on the handle.

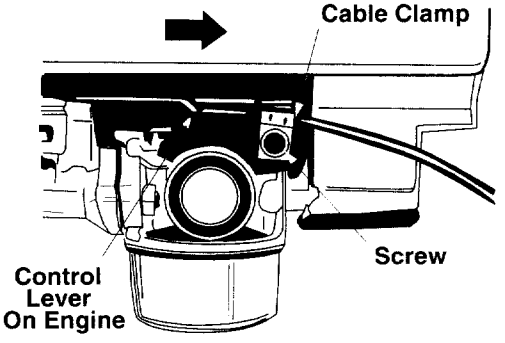
THROTTLE CONTROL ADJUSTMENT
(IF EQUIPPED)

If the throttle control requires adjustment or if it has been replaced, adjust the throttle control as follows.

1. Remove the screw shown in Figure 12. Remove the cable clamp from the cable.



(Briggs & Stratton Engine)



(Tecumseh Engine)

Figure 12

NOTE: If you have a Tecumseh engine, simply loosen the screw shown in Figure 12 so the cable will move freely beneath the clamp. It is not necessary to remove the screw and clamp completely.

2. Push the throttle control lever on the handle all the way forward as far as it will go, then back it off one "click". Make certain the throttle control lever remains in this position.
3. Push the control lever on the engine as far toward the rear of the engine as it will go.
4. Secure the cable in this position with the cable clamp and screw.

CARBURETOR ADJUSTMENT

WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load. To adjust carburetor, refer to the separate engine manual packed with your mower.

NOTE: A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

SECTION 8: LUBRICATION

WARNING: Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

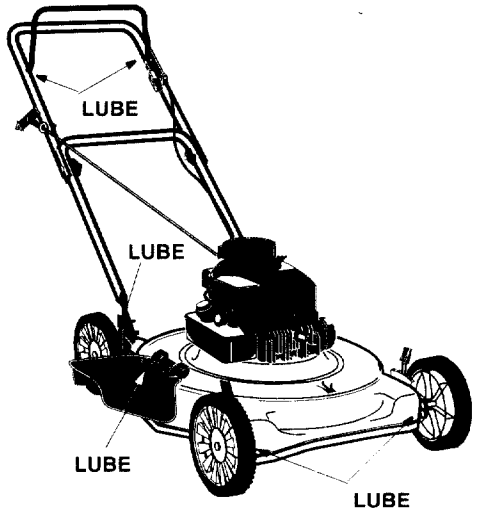


Figure 13

Blade Control

Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. See Figure 13. The blade control must operate freely in both directions.

Chute Deflector

Lubricate the torsion spring and pivot point periodically with light oil to prevent any rust or binding. Make sure that the deflector works freely. See Figure 13.

Wheels

Mower may be provided with ball bearing wheels. Lubricate at least once a season with light oil (or engine oil).
Also, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel. See Figure 13.

Engine

Follow engine manual for lubrication instructions.

SECTION 9: MAINTENANCE

WARNING: Be sure to disconnect and ground the spark plug wire before performing any repairs or maintenance.

CUTTING BLADE

Warning: When removing the cutting blade for sharpening or replacement, protect hands by using heavy gloves or a rag to grasp the cutting blade.

NOTE: When tipping the unit, empty the fuel tank and keep engine spark plug side up.

Remove the bolt and blade support or bell washer which hold the blade and adapter to the engine crankshaft. Remove the blade and adapter from the crankshaft.

WARNING: Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

Sharpening Blade

Follow the original angle of grind as a guide. Make sure that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade.

NOTE: An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

Test the blade by balancing it on a round shaft screwdriver.

Remove metal from the heavy side until it balances evenly. It is recommended that the blade always be removed from the adapter for the best test of balance.

Before reassembling the blade and the blade adapter to the unit, lubricate the engine crankshaft and the inner surface of the blade adapter with light oil (or engine oil). Lubricating the bolt holes, bolts and inner surface of the nuts is also recommended.

Replacing Blade

1. Install the blade adapter on the crankshaft with the "star" away from the engine. See Figure 14.
2. Place the blade with the side marked bottom (or with part number) facing away from the adapter.
3. Place the blade bell support over the blade aligning the tabs in the holes of the blade with the hole in the bell support and insert the hex bolt.
4. Tighten the hex bolt according to the blade mounting torque mentioned below

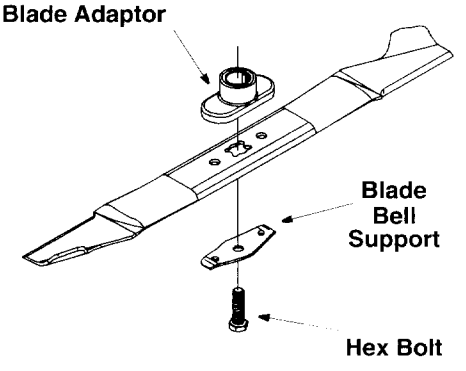


Figure 14

BLADE MOUNTING TORQUE

Center Bolt: 450 in. lbs. min., 600 in. lbs. max.;
To ensure safe operation of your unit, all nuts and bolts must be checked periodically for correct tightness.

DECK

The underside of the mower deck should be cleaned after each use to prevent a buildup of grass clippings, leaves, dirt or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may cause an uneven discharge of grass clippings at the next cutting.
The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected). The use of water or high pressure sprayers is not recommended.

ENGINE

Refer to the separate engine manual for engine maintenance instructions.
Maintain engine oil as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service air cleaner every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.

Clean the spark plug and reset the gap once a season. Spark plug replacement is recommended at the start of each mowing season. Check engine manual for correct plug type and gap specifications.

Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all grass, dirt and combustible debris from muffler area.

SECTION 10: OFF-SEASON STORAGE

The following steps should be taken to prepare lawn mower for storage.

1. Clean and lubricate mower thoroughly as described in the lubrication instructions.
2. Refer to engine manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
4. Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

NOTE: When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rust-proof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.

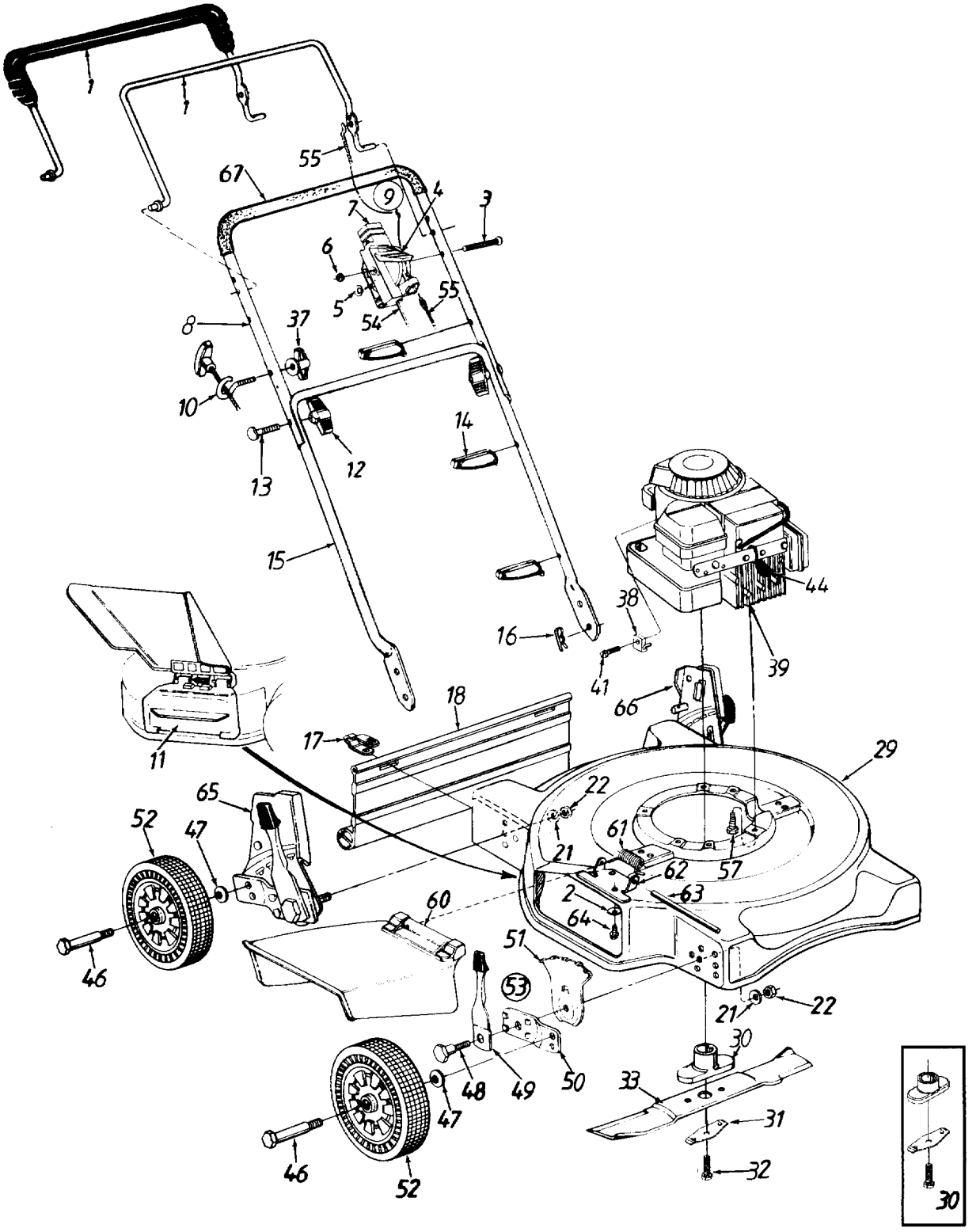
SECTION 11: TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Actions
Engine fails to start	Blade control handle disengaged.	Engage blade control handle.
	Spark plug wire disconnected.	Connect wire to spark plug.
	Dirty aircleaner.	Refer to the engine manual packed with your unit.
	Primer button not depressed.	Refer to the engine manual packed with your unit.
	Throttle control lever not in correct starting position (if so equipped).	Move throttle lever to FAST or START position.
	Fuel tank empty or stale fuel.	Fill tank with clean fresh gasoline. Fuel will not last over thirty days unless a fuel stabilizer is used.
	Blocked fuel line (if so equipped).	Clean fuel line.
	Faulty spark plug.	Clean, adjust gap or replace.
	Engine flooded.	Refer to the engine manual packed with your unit.
Engine runs erratic	Unit running in START position.	Move throttle lever to FAST position.
	Spark plug wire loose.	Connect and tighten spark plug wire. Check spark plug for fouling.
	Blocked fuel line (if so equipped) or stale fuel.	Clean fuel line; fill tank with clean, fresh gasoline. Fuel will not last over thirty days unless a fuel stabilizer is added.
	Vent in gas cap plugged.	Clear vent or threads or replace.
	Water or dirt in fuel system.	Drain fuel tank. Refill with fresh fuel.
	Dirty air cleaner.	Refer to the engine manual packed with your unit.
	Carburetor out of adjustment.	Refer to the engine manual packed with your unit.
Engine overheats	Engine oil level low.	Fill crankcase with proper oil.
	Dirty aircleaner.	Refer to the engine manual packed with your unit.
	Air flow restricted.	Stop engine and disconnect spark plug wire. Remove blower housing and clean.
	Carburetor not adjusted properly.	Refer to the engine manual packed with your unit or see an authorized service dealer.*
Occasional skip (hesitates) at high speed	Spark plug gap too close.	Adjust gap to .030".
	Carburetor idle mixture adjustment improperly set.	Refer to the engine manual packed with your unit.
Idles poorly	Spark plug fouled, faulty or gap too wide.	Reset gap to .030" or replace spark plug.
	Carburetor improperly adjusted.	Refer to the engine manual packed with your unit.
	Dirty air cleaner.	Refer to the engine manual packed with your unit.
Excessive vibration	Cutting blade loose or unbalanced.	Tighten blade and adapter. Balance blade.
	Bent cutting blade.	See an authorized service dealer.
Mower will not mulch grass	Engine speed too low.	Set throttle between 3/4 and full throttle.
	Wet grass.	Do not mow when grass is wet; wait until later to cut.
	Excessively high grass.	Mow once at a high cutting height, then mow again at desired height or make a narrower cutting swath (1/2 width).
Uneven cut	Wheels not positioned correctly.	Place all four wheels in same height position.
	Dull blade.	Sharpen or replace blade.

Note: For repairs beyond the minor adjustments above, contact your local authorized service dealer.

NOTES

Models 070 thru 088



Models 070 thru 088

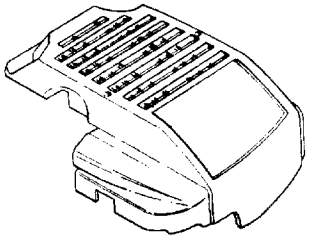
REF. NO.	PART NO.	CODE	DESCRIPTION
1	747-0824		Control Handle (Std.)
	647-0004		Control Handle Ass'y. w/Plastic
	747-0615		Control Handle Ass'y. (Opt. Gull Wing-Not Illustrated)
2	736-0270		Bell-Wash. 1/4" I.D.
3	710-0605		Oval C-Sunk Mach. Scr. †
	710-1270		Oval C-Sunk Mach Scr.
4	746-0876		Throttle Lever
5	736-0501		Spr. Wash. .66" I.D.
6	712-0324		Hex L-Nut 1/4-20 Thd.
7	646-0875		Throttle Body †
	746-0883		Control Housing
8	749-0538C		Upper Handle
	749-0920A		Upper Handle (Opt. Gull Wing-Not Illustrated)
9	811-00185		Throttle Box Comp. (Incl. Ref. 3, 4,5,6,7) †
10	710-1205		Rope Guide
11	731-1386A		Mulching Plug (Optional)
12	720-0276		Hand Knob
13	710-1174		Curved Hd. Bolt 5/16-18 x 2" Lg.
14	726-0240		Cable Tie
15	749-0928		Lower Handle
16	714-0104		Hairpin Cotter
17	17098		Hinge Clip
18	731-0872A		Rear Flap (20")
	731-1026		Rear Flap (22")
21	736-0356		Bell-Wash. .39" I.D. x 1.38"
22	712-0798		Hex Nut 3/8-16 Thd.
29	682-0033		20" Deck Ass'y.
	682-0221A		22" Deck Ass'y.
30	753-0588		Blade Adapter Kit
31	736-0524A		Support, Bell-Blade
32	710-1044		Hex Bolt 3/8-24 x 1.5" Lg.
33	742-0640		20" Blade
	742-0642		22" Blade
	742-0740		20" Mulching Blade †
	742-0742		22"Mulching Blade †
37	720-0279		Wing Nut 1/4-20 Thd.
38	751B213146		Cable Clamp (B&S)
	7510007775		Casing Clamp (Tec)
39	---		Engine
41	710-1237		Hex Wash. Hd. Tap Scr. #10-32 x .62 Lg. (B&S)
	710-0871		Hex Sems Scr. #10-32 x .3" Lg (Tec)
44	735-0639		Spark Plug Boot (Optional)
46	738-0102		Axle Bolt
47	736-0105		Bell-Wash. .400" I.D. x .88"
48	738-0507B		Shld. Bolt .50" Dia. x .357"
49	14832		Spring Lever Ass'y. w/Knob
50	15262B		Pivot Bar
51	15261A		Height Adj. Plate
52			Wheel Ass'y. Comp.
53	14578		Height Adj. Ass'y. Comp.-R.F.
	14579		Height Adj. Ass'y. Comp.-L.F.
54	746-0842		Throttle Cable-51" †
	746-0843		Throttle Cable-55" †
	746-0847		Throttle Cable-45" †
	746-0844		Throttle Cable-39" †
55	746-0550		Control Cable-39"
	746-0552		Control Cable 49"
	746-0553		Control Cable 36"
	746-0737		Control Cable-51"
57	710-0654A		Hex L-Wash. Hd. Scr. 3/8-16 x 1.0" Lg.
60	731-1034		Chute Deflector Ass'y.
61	732-0593		Torsion Spring
62	17032		Adapter Plate
63	747-0710		Hinge Pin
64	710-0599		Hex Self-Tap Scr. 1/4-20 x .5"
65	682-3024		Height Adj. Ass'y. Comp.- R.R.
66	682-3025		Height Adj. Ass'y. Comp.- L.R.
67	720-0295		Foam Grip (Opt.)
N/I	720-0249		Hub Cap Grey 3 1/2" Dia. (Opt.)
	731-0354		Hub Cap Black 4 1/2" Dia. (Opt.)
	731-0981A		Hub Cap Grey 5 1/2" Dia. (Opt.)
	731-0982A		Hub Cap Beige 5 1/2" Dia. (Opt.)

† Optional

WHEEL CHART

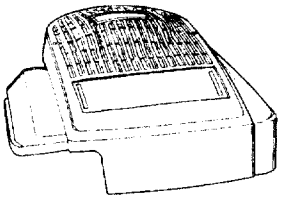
	Bar Tread	Diamond Tread	S-Wave Tread	Link Tread	T-Tread
Wheels w/o Bearings	634-0020 (8") Grey Aero Grey P.B. (8") 734-1841	734-1779 (7") White 734-1780 (8") White 734-1781 (8") Grey	734-1826 (8") Grey		
Whees with Bearings				734-1819 Grey	734-1268 Grey
Bearing Part # 741-0484					

Shroud Chart



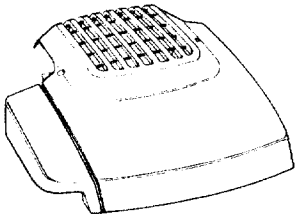
Part No.	Color
751B281439	Dark Red
751B281440	Black
751B281443	Bright Red

Hardware:
710-1256 (Screw)



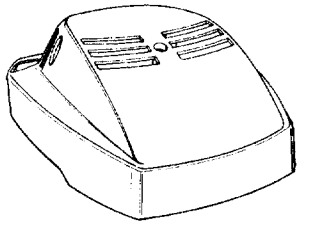
Part No.	Color
731-1395A	Red
731-1396A	Black
731-1397A	Gray

Hardware:
710-1256 (Screw)



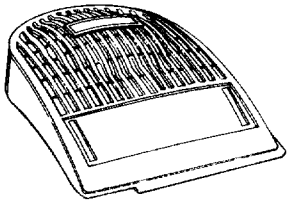
Part No.	Color
731-1402A	Yellow
731-1694	Black
731-1695	Silver
731-1934	Charcoal

Hardware:
710-1258 (Screw)



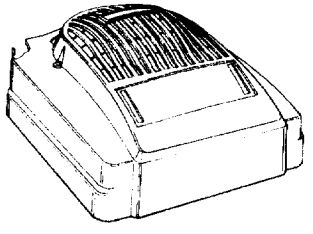
Part No.	Color
7510143208	Black

Hardware:
7510042823 (Screw)



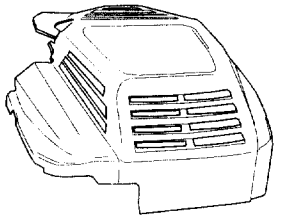
Part No.	Color
731-1585B	Black

Hardware:
710-1274 (Screw)



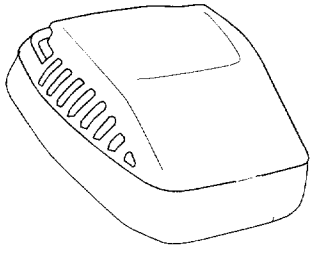
Part No.	Color
731-1586B	Black
731-1612A	Red

Hardware:
7510042823 (Screw)



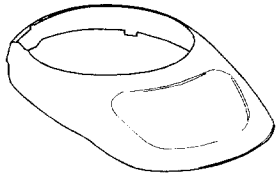
Part No.	Color
751B281451	Gray

Hardware:710-1256



Part No.	Color
751B281476	Black
751B281777	Yellow

Hardware:710-1237



Part No.	Color
7511681311	Black
7511681911	Red
7511682011	Gray

Hardware: - -

MANUFACTURER'S LIMITED WARRANTY FOR:

YARD MACHINES by MTD®

For TWO YEARS from the date of retail purchase within the United States of America, its possessions and territories, MTD PRODUCTS INC will, at its option, repair or replace, for the original purchaser, free of charge, any part or parts found to be defective in material or workmanship. This warranty covers units which have been operated and maintained in accordance with the operating instructions furnished with the unit, and which have not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance or alteration.

Normal wear parts or components thereof are subject to separate terms as noted below in the "No Fault Ninety Day Consumer Warranty" clause.

All normal wear part failures will be covered on this product for a period of 90 days regardless of cause. After 90 days, but within the two year period, normal wear parts failures will be covered ONLY IF caused by defects in material or workmanship of OTHER component parts. Normal wear parts are defined as batteries*, belts, blades, blade adapters, grass bags, rider deck wheels, seats, snow thrower skid shoes, shave plates and tires.

How to obtain service: Warranty service is available, with proof of purchase, through your local authorized service dealer. To locate the dealer in your area, please check the yellow pages or contact the Customer Service Department of MTD PRODUCTS INC, P. O. Box 368022, Cleveland, Ohio 44136-9722. Phone 1 (800) 800-7310. The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by the Customer Service Department of MTD PRODUCTS INC.

Transportation charges: Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser.

Units exported out of the United States: MTD PRODUCTS INC does not extend any warranty for products sold or exported outside of the United States of America, its possessions and territories, except those sold through MTD PRODUCTS INC's authorized channels of export distribution.

Other Warranties:

1. The engine or component parts thereof carry separate warranties from their manufacturers. Please refer to the applicable manufacturer's warranty on these items.
2. *Batteries are covered by a 90-day replacement warranty.
3. Log splitter pumps, valves and cylinders or component parts thereof are covered by a one year warranty.
4. All other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular purpose, are hereby expressly disclaimed in their entirety.
5. The provisions as set forth in this warranty provide the sole and exclusive remedy of MTD PRODUCTS INC's obligations arising from the sales of its products. MTD PRODUCTS INC will not be liable for incidental or consequential loss or damage.

How state law relates to this warranty: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Certain disclaimers are not allowed in some states and therefore they may not apply to you under all circumstances.

NOTE: This warranty does not cover routine maintenance items such as lubricants, filters, blade sharpening and tune-ups, or adjustments such as brake adjustments, clutch adjustments or deck adjustments. Nor does this warranty cover normal deterioration of the exterior finish due to use or exposure.